

REMARKS

This is in response to the Final Office Action dated December 5, 2003, claims 1-3, 5, 6, 9-11 and 16-21 are pending. The Examiner's reconsideration of the objections and rejections is respectfully requested in view of the amendments and remarks.

The Examiner has requested correction of the informalities indicated by the Draftsperson in Paper No. 5. New formal drawings are attached hereto.

The Examiner has indicated that the distance "D" is not defined in the figures. Claim 12 including the limitation "distance D" has been cancelled. Therefore, no correction is believed to be needed.

Claims 1, 6, 9, and 17-21 have been rejected under 35 U.S.C. 102(e) as being anticipated by Saito et al. (U.S. Patent No. 6,304,308). The Examiner stated essentially that Saito teaches all the limitations of claim 1, 6, 9, and 17-21.

Claim 1 claims, *inter alia*, "injection hole post structures provided in an area near said injection hole, for dividing said injection hole into a plurality of portions by using the same material as said post structures, wherein said injection hole post structures are formed from a material which deteriorates a charge retention of said liquid crystal less than said sealing material." Claim 1 has been amended to include the limitations of claim 4. Claim 6 recites, *inter alia*, "a sealing material for connecting a pair of substrates outside the display area, and forming an open injection hole for injecting liquid crystal therethrough, wherein said sealing material has a projecting portion formed by bending said sealing material at an acute angle when said injection hole is formed; an end-sealing material for sealing said injection hole after said liquid crystal is injected." Claim 6 has been amended to include the limitations of claim 7. Claim 9 claims, *inter alia*, "a plurality of injection hole post structures provided between the substrate

end in said injection hole and said display area on said one substrate, and formed after a pattern similarly to said post members, for preventing the pollutant seeped from said end-sealing material from penetrating into said display area.”

Referring to claim 1, Saito teaches a liquid crystal display having one or more injection ports (see col. 9, lines 2-4). Saito teaches that the injection port is provided in a strip spacer (SPC-S) and sealed by a seal material (SL) (see col. 8, lines 63 to col. 9, line 6). Saito does not teach or suggest injection hole post structures formed from a material which deteriorates a charge retention of said liquid crystal less than said sealing material, essentially as claimed in claim 1. Saito teaches a sealing material (SPC-S) having injection ports and does not teach or suggest injection hole post structures. Saito clearly identifies the heavy lines in the injection port of Figure 8 as a seal material (SL), wherein the seal material (SL) is deposited after liquid crystal injection (see col. 8 lines 63-65) and seals the injection hole in the strip spacer (SPC-S) (see col. 8, lines 63 to col. 9, line 6, and col. 11, lines 60-65). Nowhere does Saito teach that the seal material has any function other than sealing the injection hole in the strip spacer (SPC-S). There is no teaching of an injection post structure formed of the seal material (SL). Therefore, a seal of the injection hole is not a post structure as claimed in claim 1. Further, even assuming *arguendo* that a portion of Saito’s sealing material (SPC-S) formed between two injection port holes is an injection hole post, the injection hole post and the sealing material are formed of the same material, e.g., BPR-113, and would deteriorate a charge retention of a liquid crystal at the same rate (see col. 7, lines 49-52). Saito does not teach an injection hole post structure, much less injection hole post structures are formed from a material which deteriorates a charge retention of said liquid crystal less than said sealing material. Therefore, Saito fails to teach or suggest all the limitations of claim 1.

Referring now to claim 6; Saito teaches an injection hole formed in a sealing material (SPC-S) formed as a rectangle (see Figures 2 and 8). Saito does not teach or suggest “a sealing material for connecting a pair of substrates outside the display area, and forming an open injection hole for injecting liquid crystal therethrough, wherein said sealing material has a projecting portion formed by bending said sealing material at an acute angle when said injection hole is formed.” No portion of the sealing material (SPC-S) of Saito is bent at an acute angle. Therefore, Saito fails to teach or suggest all the limitations of claim 6.

Nakanowatari teaches one part of a sealing member 3 is opened to constitute an injection hole 5 formed at a corner position of the substrates (see col. 3, lines 7-10 and Figure 3). Nakanowatari does not teach or suggest “a sealing material for connecting a pair of substrates outside the display area, and forming an open injection hole for injecting liquid crystal therethrough, wherein said sealing material has a projecting portion formed by bending said sealing material at an acute angle when said injection hole is formed” as claimed in claim 6. It is clear from Figure 3 that the sealing member 3 of Nakanowatari is bent at an obtuse angle. As claimed in claim 6, a sealing material is distinct limitation from an end-sealing material. Nakanowatari does not teach or suggest bending a sealing material at an acute angle when said injection hole is formed, essentially as claimed in claim 6. Therefore, Nakanowatari fails to cure the deficiencies of Saito.

The combined teachings of Nakanowatari and Saito fail to teach or suggest “a sealing material for connecting a pair of substrates outside the display area, and forming an open injection hole for injecting liquid crystal therethrough, wherein said sealing material has a projecting portion formed by bending said sealing material at an acute angle when said injection hole is formed” as claimed in claim 6.

Referring to claim 9, Saito does not teach "a plurality of injection hole post structures provided between the substrate end in said injection hole and said display area on said one substrate, and formed after a pattern similarly to said post members, for preventing the pollutant seeped from said end-sealing material from penetrating into said display area," as claimed in claim 9. Saito does not teach that pollutants seeping from the end-sealing material, much less that a plurality of injection hole post structures prevent pollutant seepage from the end-sealing material, essentially as claimed in claim 9. Saito does not teach that pollutants seeping from the seal material (SL). Therefore, Saito fails to teach all the limitations of claim 9.

Claim 17 depends from claim 1. Claims 18 and 19 depend from claim 6. Claims 20 and 21 depend from claim 9. The dependent claims are believed to be allowable for at least the reasons given for the respective independent claims. The Examiner's reconsideration of the rejection is respectfully requested.

Claims 3-5, 8, 10, and 11 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Saito. The Examiner stated essentially that Saito teaches or suggests all the limitations of claims 3-5, 8, 10, and 11.

Claims 3 and 5 depend from claim 1. Claim 4 has been cancelled. Claim 8 depends from claim 6. Claims 10 and 11 depend from claim 9. The dependent claims are believed to be allowable for at least the reasons given for the respective independent claims. Reconsideration of the rejection is respectfully requested.

Claims 2, 12, and 16 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Saito in view of Ohashi et al. (U.S. Patent No. 5,798,813). The Examiner stated essentially that the combined teachings of Saito and Ohashi teach or suggest all the limitations of claims 2, 12 and 16.

Claims 2 and 16 depend from claim 1. Claims 2 and 16 are believed to be allowable for at least the reasons given for claim 1.

Claim 12 has been cancelled.

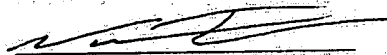
The Examiner's reconsideration of the rejection is respectfully requested.

Claim 7 has been rejected under 35 U.S.C. 103(a) as being unpatentable over Saito in view of Nakanowatari (U.S. Patent No. 4,820,025). The Examiner stated essentially that the combined teachings of Saito and Nakanowatari teach or suggest all the limitations of claim 7.

The limitations of claim 7 have been incorporated into independent claim 6.

Accordingly, claims 1-3, 5, 6, 9-11 and 16-21 are believed to be allowable for at least the reasons stated. The Examiner's withdrawal of the rejections is respectfully requested. For the forgoing reasons, the application is believed to be in condition for allowance. Early and favorable reconsideration is respectfully requested.

Respectfully submitted,



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